

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-14 (canceled).

15. (currently amended): A liquid ejecting apparatus comprising:

a moving member that has at least two liquid ejecting section groups and that is capable of moving in a predetermined direction due to an external force, each of said liquid ejecting section groups including at least two liquid ejecting sections for ejecting liquid droplets to form liquid droplet marks on a medium, and each of said liquid ejecting section groups being driven based on a single reference ejection signal for causing said liquid droplets to be ejected from said liquid ejecting sections medium, each of said liquid ejecting section groups including at least a black nozzle row, a cyan nozzle row, magenta nozzle row and a yellow nozzle row, said liquid ejecting section groups being arranged at different positions from each other in a carrying direction in which said medium is carried;

a reference liquid ejecting section group, among said liquid ejecting section groups, that is driven according to the a reference ejection signal therefor at a predetermined reference timing and that is a liquid ejecting section group other than the liquid ejecting section group, among said liquid ejecting section groups, that is the most susceptible to vibration caused by moving said moving member; and a liquid ejecting section group other than the liquid ejecting

section group, among said liquid ejecting section groups, that is the furthest away, in said carrying direction, from a section, in said moving member, to which said external force is applied;

a drive signal generating section that generates a single reference ejection signal that causes said liquid droplets to be ejected from said reference liquid ejecting section group at a predetermined reference timing;

at least one other liquid ejecting section group, among said liquid ejecting section groups, that is driven according to ~~the~~ a reference ejection signal therefor at a timing adjusted based on said predetermined reference timing of said reference liquid ejecting section group; and

at least one other drive signal generating section that generates the reference ejection signal that causes said liquid droplets to be ejected from said other liquid ejecting section group at a timing adjusted based on said predetermined reference timing of said reference liquid ejecting section group.

16. (currently amended): A liquid ejecting apparatus according to claim 15, wherein said reference liquid ejecting section group is positioned on a side, in a direction intersecting with said predetermined direction, that is close to a said section, in said moving member, to which said external force is applied.

17. (original): A liquid ejecting apparatus according to claim 16, wherein

said reference liquid ejecting section group is positioned on a side that is close to a center of said section to which said external force is applied.

18. (currently amended): A liquid ejecting apparatus according to claim 15, wherein said liquid ejecting section groups are liquid ejecting section rows, each of said liquid ejecting section rows including said liquid ejecting sections aligned in a row in a said carrying direction in which said medium is carried.

19. (currently amended): A liquid ejecting apparatus according to claim 15, wherein said liquid ejecting section groups are liquid ejecting units, each of said liquid ejecting units including at least two liquid ejecting section rows aligned in said predetermined direction, and each of said liquid ejecting section rows including said liquid ejecting sections aligned in a row in a said carrying direction in which said medium is carried.

20. (currently amended): A liquid ejecting apparatus according to claim 15, wherein said timing for driving said other liquid ejecting section group is adjusted to make a reference liquid droplet mark row that is taken as a reference and that is formed in a said carrying direction, in which said medium is carried, by said reference liquid ejecting section group ejecting liquid at said predetermined reference timing while moving and a liquid droplet mark row that is formed by said other liquid ejecting section group ejecting liquid while moving be continuous with each other.

21. (original): A liquid ejecting apparatus according to claim 20, wherein
said liquid ejecting apparatus carries said medium between an action of forming
said reference liquid droplet mark row and an action of forming said liquid droplet mark row
with said other liquid ejecting section group.
22. (original): A liquid ejecting apparatus according to claim 15, wherein said liquid
is ink.
23. (original): A liquid ejecting apparatus according to claim 15, wherein:
each of said liquid ejecting section groups has an achromatic color liquid ejecting
section row for ejecting achromatic color ink as said liquid and a chromatic color liquid ejecting
section row for ejecting chromatic color ink; and
said timing for driving said other liquid ejecting section group is adjusted
differently for
when said liquid droplet marks are to be formed on said medium by ejecting ink from
said achromatic color liquid ejecting section row, and
when said liquid droplet marks are to be formed on said medium using said chromatic
color liquid ejecting section row.

24. (original): A liquid ejecting apparatus according to claim 23, wherein
when said positions of said liquid droplet marks are to be adjusted for performing
printing on said medium by ejecting ink from said achromatic color liquid ejecting section row,
said timing for driving said other liquid ejecting section group is adjusted according to liquid
droplet marks that are formed by the ink ejected from said achromatic color liquid ejecting
section row.

25. (original): A liquid ejecting apparatus according to claim 23, wherein:
each of said liquid ejecting section groups has at least two chromatic color liquid
ejecting section rows, each for ejecting a different one of at least two chromatic color inks as said
liquid; and

when said positions of said liquid droplet marks are to be adjusted for performing
printing on said medium by ejecting ink from said chromatic color liquid ejecting section rows,
said timing for driving said other liquid ejecting section group is adjusted according to liquid
droplet mark rows that are formed by the inks ejected from said chromatic color liquid ejecting
section rows.

26. (currently amended): A liquid ejecting apparatus according to claim 25, wherein:

the liquid ejecting section rows in ~~the~~a same one of said liquid ejecting section groups are driven based on said single reference ejection signal; and

said timing for driving said other liquid ejecting section group is adjusted to make a distance, in said predetermined direction, between the liquid droplet mark rows, among said liquid droplet mark rows formed by ejecting the inks from said chromatic color liquid ejecting section rows, that are formed using ink of one predetermined color and

a distance, in said predetermined direction, between the liquid droplet mark rows, among said liquid droplet mark rows formed by ejecting the inks from said chromatic color liquid ejecting section rows, that are formed using ink of another predetermined color be approximately equal.

27. (original): A liquid ejecting apparatus according to claim 26, wherein the inks of the predetermined colors are magenta-type ink and cyan-type ink.

28. (original): A liquid ejecting apparatus according to claim 23, wherein the liquid ejecting sections for ejecting said chromatic color ink to adjust said positions of said liquid droplet marks are a portion of said liquid ejecting sections of said chromatic color liquid ejecting section row.

29. (currently amended): A liquid ejecting apparatus comprising:

a moving member that has at least two ink ejecting units and that is capable of moving in a predetermined direction due to an external force, each of said ink ejecting units including at least two ink ejecting section rows aligned in said predetermined direction, each of said ink ejecting section rows including at least two ink ejecting sections that are for ejecting ink droplets to form ink droplet marks on a medium and that are aligned in a row in a carrying direction in which said medium is carried, and each of said ink ejecting units being driven based on a single reference ejection signal for causing said ink droplets to be ejected from said ink ejecting sections a medium, each of said liquid ejecting units including at least a black nozzle row, a cyan nozzle row, a magenta nozzle row, and a yellow nozzle row, said liquid ejecting units being arranged at different positions from each other in a carrying direction in which said medium is carried;

a reference ink ejecting unit, among said ink ejecting units, that is driven according to the reference ejection signal therefor at a predetermined reference timing and that is an ink ejecting unit other than the ink ejecting unit, among said ink ejecting units, that is ~~the most~~ susceptible to vibration caused by moving said moving member the furthest away, in said carrying direction, from a section, in said moving member, to which said external force is applied; and

a drive signal generating unit that generates a single reference ejection signal that causes said liquid droplets to be ejected from said reference liquid ejecting unit at a predetermined reference timing;

at least one other ink ejecting unit, among said ink ejecting units, that is driven according to the reference ejection signal therefor at a timing adjusted based on said predetermined reference timing of said reference ink ejecting unit; and

at least one other drive signal generating unit that generates the reference ejection signal that causes said liquid droplets to be ejected from said other liquid ejecting unit at a timing adjusted based on said predetermined reference timing of said reference liquid ejecting unit,
wherein:

said reference ink ejecting unit is positioned on a side, in a direction intersecting with said predetermined direction, that is close to a center of a section, in said moving member, to which said external force is applied;

each of said ink ejecting units has an achromatic color ink ejecting section row for ejecting achromatic color ink and at least two chromatic color ink ejecting section rows each for ejecting a different one of at least two chromatic color inks;

a reference ink droplet mark row that is taken as a reference and that is formed in said carrying direction by said reference ink ejecting unit ejecting ink at said predetermined reference timing while moving and

an ink droplet mark row that is formed by said other ink ejecting unit ejecting ink while moving are formed, one of either said reference ink droplet mark row or said ink droplet mark row being formed before a carrying action of said medium, and the other being formed after said carrying action;

when said positions of said ink droplet marks are to be adjusted for performing printing on said medium by ejecting ink from said achromatic color ink ejecting section row, said timing for driving said other ink ejecting unit is adjusted according to ink droplet marks that are formed by the ink ejected from said achromatic color ink ejecting section row to make

said reference ink droplet mark row and

said ink droplet mark row that is formed by said other ink ejecting unit

be continuous with each other; and

when said positions of said ink droplet marks are to be adjusted for performing printing on said medium by ejecting inks from said chromatic color ink ejecting section rows, said timing for driving said other ink ejecting unit is adjusted to make

a distance, in said predetermined direction, between the ink droplet mark rows, among said ink droplet mark rows formed by ejecting the inks from said chromatic color ink ejecting section rows, that are formed using magenta-type ink by a portion of said ink ejecting sections of said ink ejecting section row and

a distance, in said predetermined direction, between the ink droplet mark rows, among said ink droplet mark rows formed by ejecting the inks from said chromatic color ink ejecting section rows, that are formed using cyan-type ink by a portion of said ink ejecting sections of said ink ejecting section row be approximately equal.

30. (currently amended): A method of adjusting positions of liquid droplet marks, comprising the steps of:

preparing a liquid ejecting apparatus including a moving member that has at least two liquid ejecting section groups and that is capable of moving in a predetermined direction due to an external force, each of said liquid ejecting section groups including at least two liquid ejecting sections for ejecting liquid droplets to form liquid droplet marks on ~~a medium, each of said liquid ejecting section groups being driven based on a single reference ejection signal for causing said liquid droplets to be ejected from said liquid ejecting sections~~ a medium, each of said liquid ejecting section groups including at least a black nozzle row, a cyan nozzle row, a magenta nozzle row, and a yellow nozzle row, said liquid ejecting section groups being arranged at different positions from each other in a carrying direction in which said medium is carried;

ejecting liquid to form a liquid droplet mark pattern including

liquid droplet marks formed by ejecting liquid from the liquid ejecting sections of a reference liquid ejecting section group, among said liquid ejecting section groups, that is driven according to the reference ejection signal therefor at a predetermined reference timing and that is a liquid ejecting section group other than the liquid ejecting section group, among said liquid ejecting section groups, that is the most susceptible to vibration caused by moving said moving member and

liquid droplet marks formed by ejecting liquid from the liquid ejecting sections of one other liquid ejecting section group, among said liquid ejecting section groups other than said reference liquid ejecting section group, that is driven according to the reference ejection signal therefor at a timing different from said predetermined reference timing; and

adjusting the timing of the reference ejection signal for said one other liquid ejecting section group based on said liquid droplet mark pattern.

31. (currently amended): A liquid ejecting system comprising:

a computer; and

a liquid ejecting apparatus that is connected to said computer and that includes:

a moving member that has at least two liquid ejecting section groups and that is capable of moving in a predetermined direction due to an external force, each of said liquid ejecting section groups including at least two liquid ejecting sections for ejecting liquid droplets to form liquid droplet marks on a medium, and each of said liquid ejecting section groups being driven based on a single reference ejection signal for causing said liquid droplets to be ejected from said liquid ejecting sections a medium, each of said liquid ejecting section groups including at least a black nozzle row, a cyan nozzle row, a magenta nozzle row, and a yellow nozzle row, said liquid ejecting section groups being arranged at different positions from each other in a carrying direction in which said medium is carried;

a reference liquid ejecting section group, among said liquid ejecting section groups, that is driven according to the reference ejection signal therefor at a predetermined reference timing and that is a liquid ejecting section group other than the liquid ejecting section group, among said liquid ejecting section groups, that is the most susceptible to vibration caused by moving said moving member the furthest away, in said carrying direction, from a section, in said moving member, to which said external force is applied;

a drive signal generating section that generates a single reference ejection signal that causes said liquid droplets to be ejected from said reference liquid ejecting section group at a predetermined reference timing; and

at least one other liquid ejecting section group, among said liquid ejecting section groups, that is driven according to the reference ejection signal therefor at a timing adjusted based on said predetermined reference timing of said reference liquid ejecting section group; and

at least one other drive signal generating section that generates the reference ejection signal that causes said liquid droplets to be ejected from said other liquid ejecting section group at a timing adjusted based on said predetermined reference timing of said reference liquid ejecting section group.